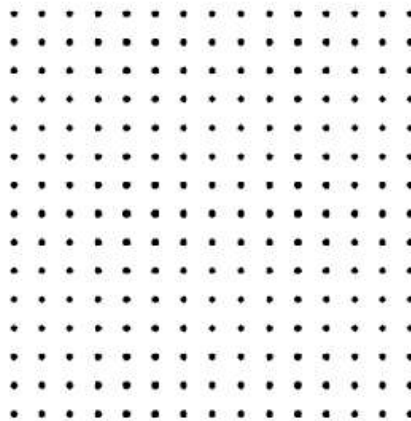


# Paramonos Research & Consulting

a Lean Six Sigma Consulting Firm focus on Cost Savings & Process Improvement

UNCATEGORIZED

## LEAN SIX SIGMA EXPLAINED BY GABRIEL DANIELS PE. LEAN SIX SIGMA MASTER BLACK BELT



**COST SAVINGS TOOLS, TECHNIQUES AND PHILOSOPHY FOR BUSINESS IMPROVEMENT** Powered By Gabriel Daniels PE. Lean Six Sigma Master Black Belt

**Author: Gabriel Daniels PE,**  **1 Comment**

# LEAN SIX SIGMA EXPLAINED BY GABRIEL DANIELS PE. LEAN SIX SIGMA MASTER BLACK BELT



What is Lean Six Sigma?

**Lean Six Sigma** is a managerial approach that combines Six Sigma methods and tools and the **Lean manufacturing**/lean enterprise philosophy, striving to eliminate waste of physical resources, time, effort and talent, while assuring quality in production and organizational processes.

## What Is Lean?

**Lean** is popular for its methodical approach to streamlining both manufacturing and service processes by eliminating waste while continuing to deliver value to customers.

Although **Lean** is widely known for these benefits, it's not just a set of tools. It stems from cultural roots which manifest in the business world as a particular approach to management: a **Lean Culture**.

It is also known as the Toyota Production System or just-in-time production. **Lean production** principles are also referred to as **lean management** or **lean thinking**.

Lean originated with both Henry Ford and his storied assembly line and, more famously, with **Taiichi Ohno** who codified the Lean Management Philosophy and Practices into the Toyota Production System.

Engineer Taiichi Ohno is credited with developing the principles of lean production after World War II. His philosophy, which focused on eliminating waste and empowering workers, reduced inventory and improved productivity. Instead of maintaining resources in anticipation of what might be required for future manufacturing, as Henry Ford did with his production line, the management team at Toyota built partnerships with suppliers. In effect, under the direction of Engineer Ohno, Toyota automobiles became made-to-order. By maximizing the use of multi-skilled employees, the company was able to flatten their management structure and focus resources in a flexible manner. Because the company was able make changes quickly, they were often able to respond faster to market demands than their competitors could.

A Lean process:

- Is Faster
- Is more efficient and economical
- Delivers satisfactory quality
- Lean is achieved by removing “Waste”, which is an activity not required to complete a process.

After removing Waste, only the steps required to produce a product or service that is satisfactory to a Customer will remain.

## What Is Six Sigma?

A large, bold, black number '60' is displayed in the center of the page. The '6' and '0' are thick and rounded, with a modern, sans-serif style. The '6' has a single loop, and the '0' is a simple oval shape.

**Six Sigma** is a method that provides organizations tools to improve the capability of their business processes. This increase in performance and decrease in process variation lead to defect reduction and improvement in profits, employee morale, and quality of products or services. Six Sigma quality is a term generally used to indicate a process is well controlled (within process limits  $\pm 3s$  from the center line in a control chart, and requirements/tolerance limits  $\pm 6s$  from the center line).

Different definitions have been proposed for Six Sigma, but they all share some common threads:

- Use of teams that are assigned well-defined projects that have a direct impact on the organization's bottom line.
- Training in “**statistical thinking**” at all levels and providing key people with extensive training in advanced statistics and project management. These key people are designated “Black Belts.” Review the different Six Sigma belts, levels and roles.
- Emphasis on the **DMAIC** approach to problem-solving: define measure, analyze, improve, and control.
- A **management environment** that supports these initiatives as a business strategy.

## What Are The Benefits Of Using Lean Six Sigma?

By embracing the methodology that is critical to the success of Lean Six Sigma, an organization needs to make a total commitment to a culture of continuous improvement and workflow optimization. Implementation of successful Lean Six Sigma programs results in **increased efficiency**, **higher quality** and better customer service from any organization willing to make that commitment. It can further be an integral part of instilling a team culture where everyone involved in the process is empowered to take ownership in every aspect of the operation, whether it relates directly to their daily responsibilities or not.

Key to realizing the **benefits of Lean Six Sigma** is utilizing and integrating individuals highly trained in the process, and who have attained a certification referred to as a Lean Six Sigma Black Belt. A Lean Six Sigma Black Belt must go through rigorous training in planning, development, project team management, measurement systems analysis, organizational leadership and communication strategy in order to achieve their certification, of which there are several levels.

The Lean Six Sigma Master Black Belt certification is earned by a person who has achieved the highest degree of training and qualification in the Lean Six Sigma process. These individuals incorporate their training and certification to objectively evaluate processes and identify areas in need of improvement. As a company or organization moves forward with the execution of these projects, it will continually become more efficient in its use of time and resources.

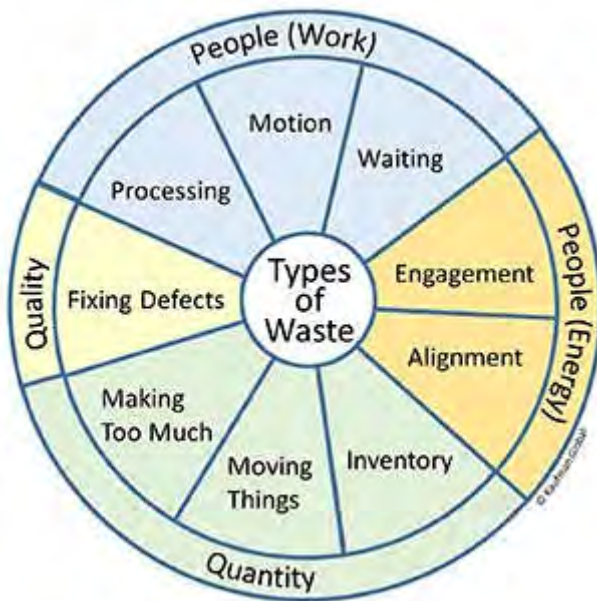
### Increased Efficiency

A **primary benefit** of implementing the Lean Six Sigma methodology for an organization is increased efficiency on many levels. Lean Six Sigma Master Black Belts are trained to analyze each process within a workflow for weaknesses that can be mitigated or eliminated to achieve maximum efficiency in terms of time and resource allocation. Lean Six Sigma integration can be simply explained as the whole being the sum of its parts, so each part needs to operate at its fullest potential to attain the most efficient results. Organizations that successfully implement Lean Six Sigma can expect to achieve measurably increased efficiencies in processes both large and small.

## Higher-Quality Output

In addition to making processes more efficient, Lean Six Sigma programs focus on simultaneously achieving the highest level of quality. This is accomplished by prioritizing areas of the operation such as quality control standards and practices, inventory control, production scheduling and elimination of quality issues in literally all operational processes.

By identifying the existing standards associated with these areas, suggesting practical methods of improvement and empowering each employee to own these improvements, the Lean Six Sigma methodology can help any organization achieve a higher level of quality in their products, processes, communications, and services.



## Better Customer Service

By increasing the efficiency of the processes and the quality of the output, the LSS methodology will have already achieved a portion of the customer service formula. However, accurate man-hour reporting, production scheduling, bar coding and reducing time to meet customer requirements are also aspects of the Lean Six Sigma process primarily focused on delivering a better experience for the customer. By optimizing these areas of the production process, Lean Six Sigma Master Black Belts will enable their employers to achieve top-level customer service.

## A Safer Workplace

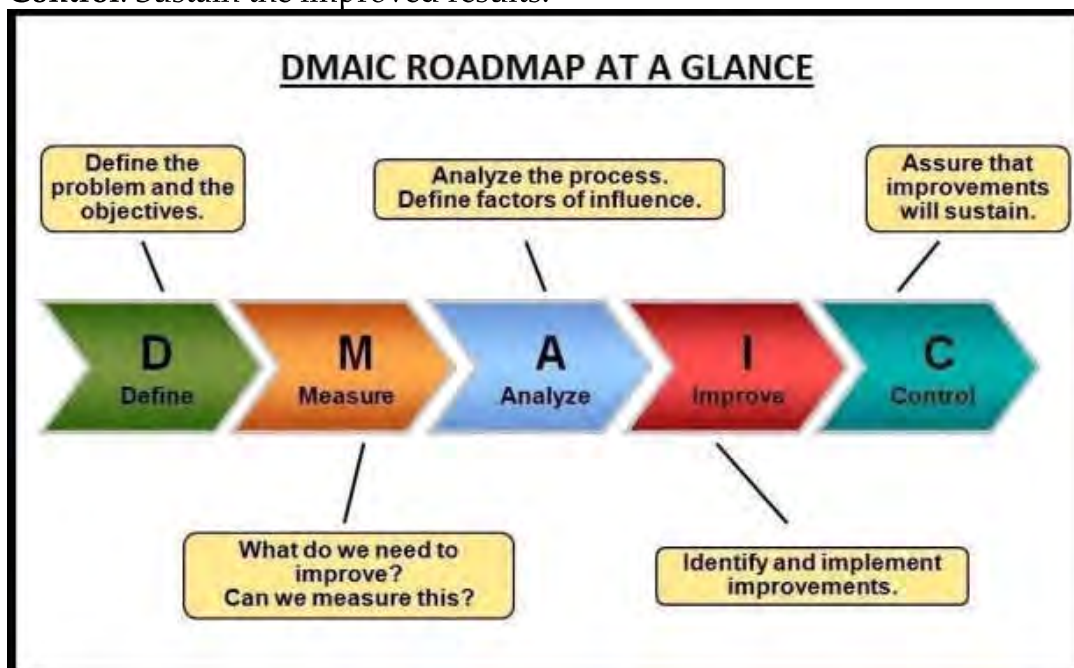
While possibly not the most obvious benefit of successful Lean Six Sigma implementation, simply by nature of the cultural commitment and employee ownership that are integral components to Lean Six Sigma integration, not to mention the across-the-board process improvements, the net result is a significantly safer workplace. That is a benefit not only to instilling the team culture referred to above, but it goes right to the bottom line as well.

## How Does Lean Six Sigma Work?

Lean Six Sigma is simply an effective methodology used to fix a problem. It is based on common sense practices and is completed in five phases:

### Five Basic Phases

1. **Define:** Define the problem and what is required to satisfy your customer.
2. **Measure:** Map the current process to collect data.
3. **Analyze:** Investigate and identify what causes the problem.
4. **Improve:** Implement a fix that will solve the problem.
5. **Control:** Sustain the improved results.



Simply put, Lean Six Sigma helps you identify the cause of a problem and implement a fix based on facts, rather than assumptions. This produces improved results and success that you and your team, managers, and organization can be proud of.



PDCA	DMAIC	A3	8D/PSP
Plan	Define	Clarify the Problem	1. Create Team & collect Information
	Measure	Break down the Problem	2. Describe the Problem
		Set a Target	3. Define Containment Actions
	Analyse	Analyze the Root Cause	4. Analyze the Root Cause
		Develop Countermeasures	5. Define possible corrective Actions
Do	Improve	See Countermeasures	6. Implement corrective Actions
Check	Control	Evaluate Results & Processes	7. Define Actions to avoid Recurrence
Act		Standardize Success	8. Congratulate your Team

Who Benefits From Using Lean Six Sigma?

## Organizations Of All Sizes

Lean Six Sigma works for small, medium (SMBs) and large businesses. In fact, often times, the same success that is achieved within large businesses can be achieved in small and medium businesses since smaller organizations can move faster because fewer people, fewer resources and lower levels of red-tape are involved.

The benefits are boundless, as Lean Six Sigma increases revenue and reduces costs while freeing up resources that can be utilized in any endeavor your organization wishes to pursue.

For example:

- A new product or service
- Other improvement projects
- Expanding your sales force

## People & Morale

Lean Six Sigma not only increases revenue and reduces costs, it positively affects people by engaging them in improving the way they work. Since employees are the closest to the actual work (production of a product or delivery of a service) of any organization, they

become the best resources to understand how to improve the efficiency and effectiveness of business processes.

By participating in successful Lean Six Sigma projects, employees are able to build the confidence and develop the capability to become your business' most important assets. Studies show that when employees feel that they have a positive effect on the organization, they perform better, are more accountable and live happier lives. And once your employees get comfortable with Lean Six Sigma skills, they can continue to find and remove problems and waste in your organization.

## Industries

### Healthcare

Healthcare costs are skyrocketing across the country and an aging population means increased stress on healthcare services. Lean Six Sigma can help you increase the amount of time care providers are able to spend with patients, reduce the time spent on paperwork, and reduce the time people spend waiting for care, waiting for claims or waiting for a call.

### Technology

As consumers increasingly rely on technology, Lean Six Sigma helps businesses by delivering products with fewer defects, decreasing returns and more.

### Financial Services

Budgets continue to tighten and resources are more limited than usual. Lean Six Sigma shortens the time to sign up new customers, reduces the time to provide customer service and brings revenue in faster.

*Paramonos Research Labs, a cost savings & strategy consulting firm who partner with executives on solving complicated problems within their organization using the **latest costs saving data collection tools and methodologies.***

Author: GABRIEL DANIELS P.E.,



## ***Certification***

*Lean Six Sigma Master Black Belt*

***University of Alabama***

*Bachelors in Industrial Engineer*

***University of Alabama***

*Masters in Business Administration*

Thanks for visiting this blog. Please feel free to make a comment on this post using the box below.



## **Published by Gabriel Daniels PE,.**

Gabe is an Operations, Engineering, and Business Process Improvement professional with over 9 years domestic and international experience. He is a practitioner of Lean and change management strategies, a licensed industrial engineer, and Master Six Sigma Black Belt. Gabe experience includes managing key segments of medium size and larger, industry leading consumer products manufacturers, automotive component suppliers, and smaller technology and engineering based organizations. His manufacturing knowledge spans from raw material conversion, through component fabrication, coating, assembly, and packaging. He also has extensive experience off the manufacturing floor implementing ERP systems, and leading improvements in transactional processes. He has a drive for “improving every day” through the use of effective change management techniques, a strong technical skill set, and the application of process analysis/improvement tools. Gabe holds a Bachelor of Science degree in Industrial Engineering from the University of Alabama “In the global and competitive environment of today and tomorrow, organizations must rethink and reshape their approach to execution in order to stay competitive. Operational Excellence is the strategic initiative under which this process can take shape.” View all posts by Gabriel Daniels PE,.

## **One thought on “LEAN SIX SIGMA EXPLAINED BY GABRIEL DANIELS PE. LEAN SIX SIGMA MASTER BLACK BELT”**

### **Add Comment**

1. Pingback: Problem Solving Methodologies – Cost savings Tools, Techniques and Philosophy for Business Improvement

© 2018 PARAMONOS RESEARCH & CONSULTING



